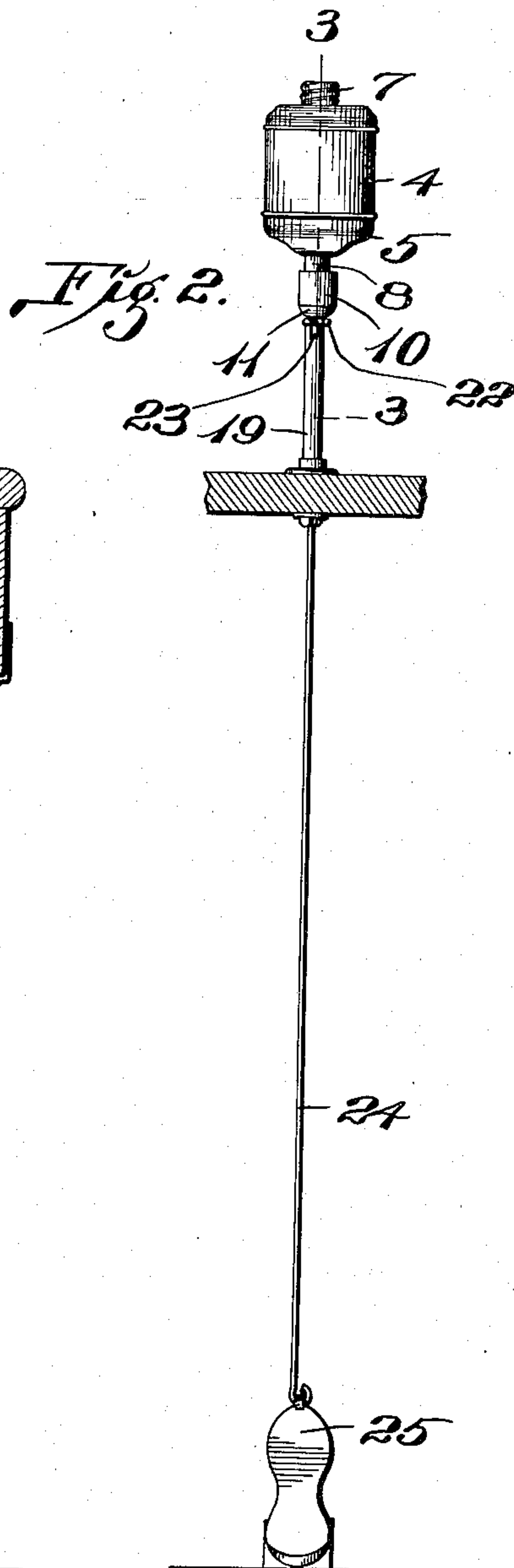
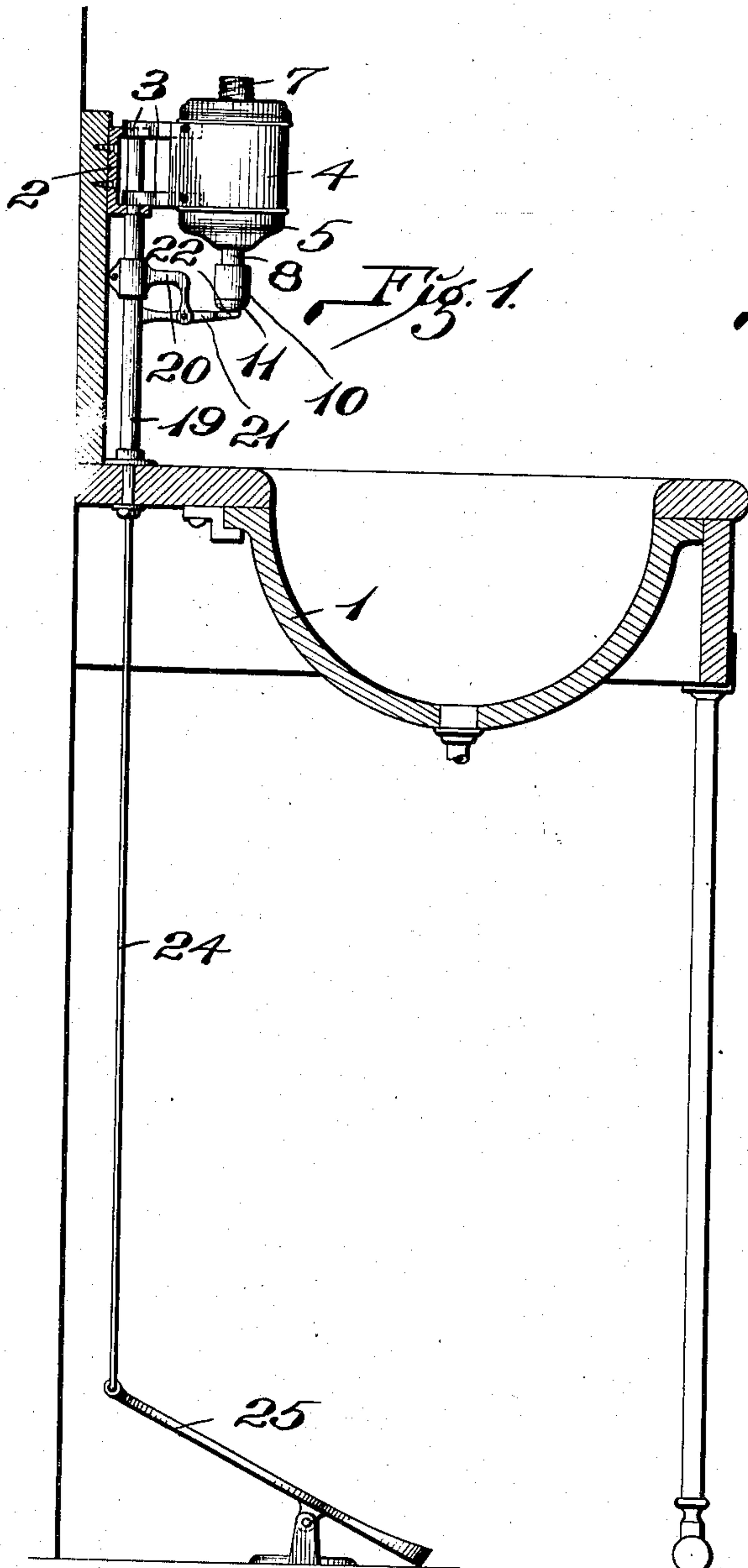


E. E. ELLMANN.  
LIQUID SOAP RECEPTACLE.  
APPLICATION FILED MAR. 16, 1908.

924,046.

Patented June 8, 1909.

3 SHEETS—SHEET 1.



ATTEST.

E. M. Harrington  
W. O. Smith

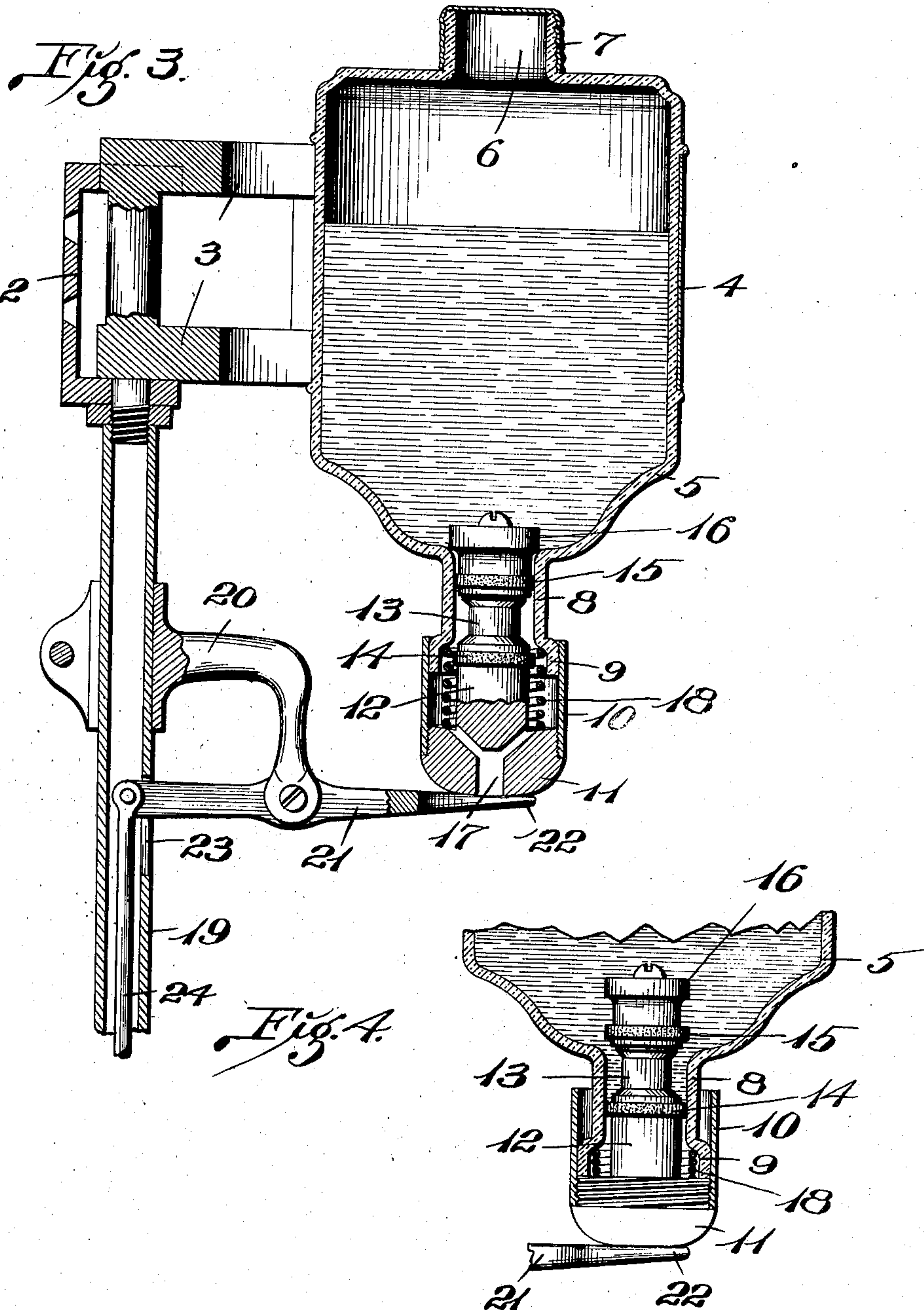
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3 SHEETS—SHEET 2.



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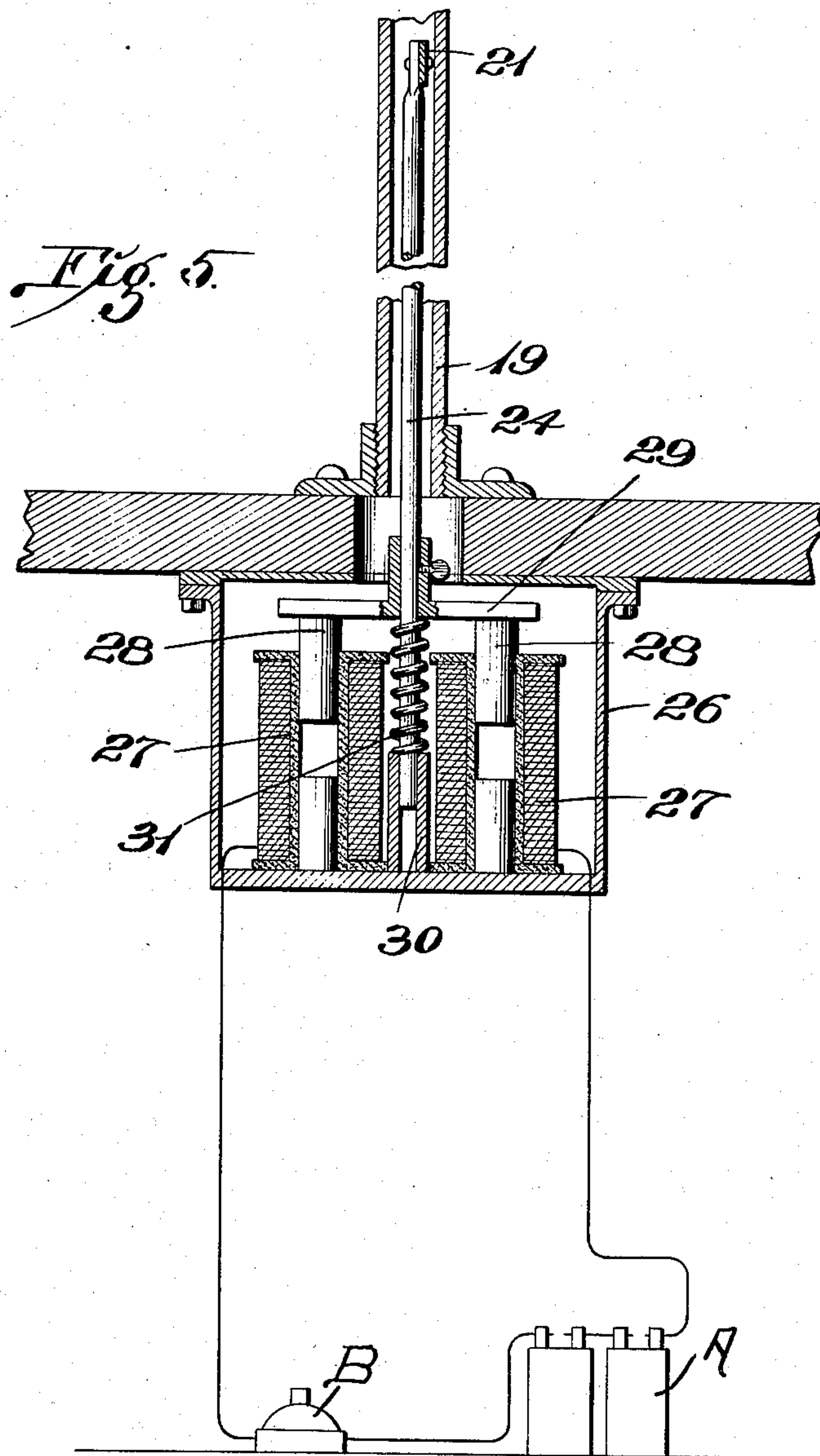
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3 SHEETS—SHEET 3.



ATTEST.

*E. M. Harrington*  
*W. P. Smith*

INVENTOR.

ERNEST E. ELLMANN.

BY *Richard J. Longan*  
ATTYS.



# UNITED STATES PATENT OFFICE.

ERNEST E. ELLMANN, OF ST. LOUIS, MISSOURI.

## LIQUID-SOAP RECEPTACLE.

No. 924,046.

Specification of Letters Patent.

Patented June 8, 1909.

Application filed March 16, 1908. Serial No. 421,330.

*To all whom it may concern:*

Be it known that I, ERNEST E. ELLMANN, a citizen of the United States, and resident of St. Louis, Missouri, have invented certain new and useful Improvements in Liquid-Soap Receptacles, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to a liquid soap receptacle, which is particularly intended for use immediately adjacent stationary wash basins of lavatories, and which receptacle conveniently holds a supply of liquid soap, a portion of which is automatically fed through a valve in the bottom of the receptacle upon the actuation of mechanism attached to the receptacle and to said valve.

The principal object of my invention is to construct a simple, inexpensive liquid soap receptacle, which can be conveniently located immediately above a wash bowl, and which is operated by the pressure of the foot, thus overcoming the necessity of bringing the hands in contact with any portion of the receptacle when obtaining a supply of soap.

A further object of my invention is to provide a liquid soap receptacle with a valve which will deliver a predetermined amount of liquid soap at each actuation, thereby overcoming any wasteful discharge of the soap at the time the valve is actuated.

To the above purposes, my invention consists in certain novel features of construction and arrangement of parts, which will be hereinafter more fully set forth, pointed out in the claims, and illustrated in the accompanying drawings, in which:—

Figure 1 is a vertical section taken through a stationary wash bowl, and showing my improved soap receptacle in position for use above the bowl; Fig. 2 is a front elevation of the receptacle; Fig. 3 is an enlarged vertical section taken on the line 3—3 of Fig. 2; Fig. 4 is a view of the lower end of the receptacle, and showing the position assumed by the valve when the same is elevated; Fig. 5 is a vertical section of a modified form of the apparatus utilized for actuating the discharge valve of the receptacle.

Referring by characters to the accompanying drawings:—1 designates the wash bowl, and arranged adjacent thereto and preferably against the wall, immediately to the rear of the bowl, is a bracket 2, to which is

fixed a forwardly projecting bracket 3; and secured to the forward portion of said bracket 3 are the ends of a metal loop or band 4, which encircles a vertically disposed cylindrical receptacle 5, preferably of glass, provided on top with an inlet opening 6, normally closed by a screw cap 7; and formed at the lower end of said receptacle is a depending discharge spout 8, the lower end of which is enlarged, as designated by 9. Arranged to slide vertically on this enlarged lower end 9 is a sleeve 10, in the lower end of which is screw seated a head 11, the under side of which is rounded; and formed integral with said head and extending upward through the spout 8 is a cylindrical valve 12, in the central portion of which is formed an annular groove 13; and seated in the body of the valve, immediately below this groove, is a ring or gasket 14, of rubber or analogous material, and there being a similar ring or gasket 15 seated in the body of the valve immediately above said groove. The diameter of the valve is slightly less than the internal diameter of the spout 8, and the rings or gaskets 14 and 15 are of such diameter that they snugly fit the interior of said spout. Detachably fixed on the upper end of the valve 12 is a disk 16, of such size as that when the valve is in its normal position, as shown in Fig. 3, the edge of said disk rests on the shoulder between the spout 8 and the bottom of the receptacle 5. Formed through the head 11 is a discharge aperture 17, and interposed between said head and the shoulder between the spout 8 and the enlarged lower end 9 thereof is an expansive coil spring 18. Detachably fixed to a portion of the bracket 3 and extending downward through the slab which supports the bowl 1 is a tube 19, on which is adjustably located an arm 20, which extends toward the valve in the lower end of the receptacle 5; and pivotally arranged on the lower end of said arm 20 is a lever 21, the forward end of which is bifurcated, as designated by 22, and said bifurcated end normally bears upon the under side of the head 11. The rear end of this lever 21 passes through a vertically disposed slot 23 formed in the tube 19, and this end of the lever is connected to the upper end of a rod 24 which extends downward beneath the wash bowl, and being connected at its lower end to a foot lever, or pedal 25, arranged on the floor.

When a liquid soap receptacle of my im-



proved construction is in use, it is positioned as seen in Figs. 1 and 2; and owing to the expansive action of the coil spring 18, the valve 12 is held at its lowermost position, as seen in Fig. 3, with the disk 16 resting on the shoulder at the upper end of the spout 8; and, when so positioned, the gasket 15 fits snugly within the spout 8 and prevents the escape of any liquid soap through said spout. When the parts are so positioned, the gasket 14 occupies a position just below the shoulder between the spout 8 and the lower end thereof.

To operate the valve and permit the discharge of a certain amount of liquid soap, the operator depresses the pedal or foot lever 25, and in so doing actuates the lever 21, and moves the valve 12 and parts thereby upward against the resistance of the coil spring 18; and, as a result, the various parts are moved upward into the positions seen in Fig. 4, with the gasket 15 above the shoulder at the upper end of the spout 8, and with the gasket 14 fitting snugly within said spout. The annular groove 13, between the gaskets 14 and 15, becomes filled with liquid soap; and, as soon as the pressure on the pedal 25 is removed, the spring 18 will act to move the valve downward to its normal position; and, as a result, the liquid soap trapped between the gaskets 14 and 15 is carried downward through the spout 8 until the gasket 14 passes below the shoulder at the lower end of said spout, and said liquid soap now discharges into the sleeve 10 and through the opening 17 in the head 11, and into the hand which is held immediately beneath said head 11. When the parts are thus returned to their normal positions, the gasket 15 passes into the upper end of the spout to prevent leakage of the liquid soap through the spout 8.

In Fig. 5 I have illustrated electrically operated means for actuating the rod 24 and valve operating lever 21. This arrangement comprises a housing 26 fixed to the under side of the slab which carries the wash bowl, and in which is positioned a pair of magnet coils 27 which are in circuit with batteries A, or other suitable source of electricity, and there being a switch or circuit closer B conveniently located in said circuit. Arranged to move through the upper ends of the coils 27 are armatures 28 which are connected by a transverse bar 29 carried by the rod 24, and the lower end of said rod bears in a tubular guide 30 arranged between the coils 27; and interposed between said tubular guide and the under side of the bar 29 is an expansive coil spring 31. Where this form of the device is employed, the circuit in which the coils are located is normally open and the coil spring 31 maintains the armatures 28 elevated. When the circuit is closed by actuating the switch or circuit closer B, the

coils 27 are energized, and as a result the armatures 28 are drawn downward, thus imparting downward movement to the rod 24 and operating the lever 21. As soon as the circuit is broken, the coil spring 31 elevates the cross bar 29, rod 24, and armatures 28.

A soap receptacle of my improved construction is simple and inexpensive, occupies a convenient position adjacent the wash bowl, and, when actuated, discharges a predetermined amount of liquid soap; and the operation incident to the discharge of the soap is brought about without the use of the hands, and, for this reason, the device is sanitary to a high degree, and, therefore, especially applicable for use in hospitals, and the like.

I claim:—

1. A device of the class described, comprising a liquid soap receptacle, a discharge spout therefor, a sleeve arranged to slide on the discharge spout, a spring actuated valve carried by the sleeve and operating in the discharge spout, in the periphery of the central portion of which valve is formed an annular groove.

2. A device of the class described, comprising a liquid soap receptacle, a discharge spout therefor, a sleeve arranged to slide upon the discharge spout, a spring actuated valve carried by the sleeve and operating in the discharge spout, in the periphery of the central portion of which valve is formed an annular groove, and means for moving the valve upward through the discharge spout.

3. A device of the class described, comprising a liquid soap receptacle, a discharge spout therefor, a sleeve arranged to slide on the discharge spout, a spring actuated valve carried by the sleeve and operating in the discharge spout, in the periphery of the central portion of which valve is formed an annular groove, and gaskets positioned on the valve above and below the groove therein.

4. A device of the class described, comprising a liquid soap receptacle, a discharge spout therefor, a sleeve arranged to slide on the discharge spout, a spring actuated valve carried by the sleeve and operating in the discharge spout, in the periphery of the central portion of which valve is formed an annular groove, gaskets positioned on the valve above and below said groove, and means for moving the valve upward through the discharge spout.

5. In a device of the class described, a liquid soap receptacle provided with a discharge opening, a sleeve arranged for vertical movement and inclosing the walls of said opening, a valve carried by said sleeve and operating in the discharge opening of the receptacle, which valve is provided with an annular groove for trapping and discharging a predetermined amount of liquid soap, and pedally operated means for actuating the valve.



6. A device of the class described, comprising a liquid soap receptacle, a spout depending from the lower end thereof, a sleeve arranged to slide vertically on the spout, a  
5 valve carried by the sleeve and operating in the spout, which valve is provided with an annular groove for trapping and discharging a predetermined amount of liquid soap, a lever engaging the valve and adapted to

move the same through the spout, and ped- 10  
ally operated means for actuating the lever.

In testimony whereof, I have signed my name to this specification, in presence of two subscribing witnesses.

ERNEST E. ELLMANN.

Witnesses:

M. P. SMITH,

E. L. WALLACE.